

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2001-NE-35-AD; Amendment 39-12826; AD 2002-14-26]**

**RIN 2120-AA64**

### **Airworthiness Directives; Turbomeca S.A. Arriel Models 1A, 1A1, 1B, 1D, and 1D1 Turboshift Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that is applicable to Turbomeca S.A. Arriel models 1A, 1A1, 1B, 1D, and 1D1 turboshift engines. This action requires installation of containment shield rings around the free turbine blade area, and installation of a double support around the gearbox free turbine bearing housing. This amendment is prompted by two reports of the cantilevered axis of the free turbine moving from its design position and inducing blade trajectories outside the current design free turbine containment area. This condition can lead to uncontainment of the free turbine during an overspeed event. The actions specified in this AD are intended to prevent uncontainment of the free turbine during an overspeed event, resulting in damage to the helicopter.

**DATES:** Effective August 6, 2002. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of August 6, 2002.

Comments for inclusion in the Rules Docket must be received on or before September 20, 2002.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2001-NE-35-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: "[9-ane-adcomment@faa.gov](mailto:9-ane-adcomment@faa.gov)". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from Turbomeca S.A., 40220 Tarnos, France; telephone: (33) 05 59 64 40 00; Fax: (33) 05 59 64 60 80. This information may be examined, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park; Burlington, MA 01803-5299, telephone (781) 238-7175; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** The Direction Generale de L'Aviation Civile (DGAC), which is the airworthiness authority for France, recently notified the FAA that an unsafe condition may exist on Turbomeca S.A. Arriel models 1A, 1A1, 1B, 1D, and 1D1 turboshaft engines. The DGAC advises that two reports were received of the cantilevered axis of the free turbine moving from its design position and inducing blade trajectories outside the current design, free turbine containment area. This condition can lead to uncontainment of the free turbine during an overspeed event.

### **Manufacturer's Service Information**

Turbomeca S.A. has issued service bulletin (SB) No. A292 72 0206, Update 2, dated October 23, 2000, which specifies installation of modification TU 254, containment shield ring made of INCO 625 material, SB No. A292 72 0207, Update 2, dated October 23, 2000, which specifies installation of modification TU 255, additional containment shield ring made of Z10CNT 18-11 material, and SB No. 292 72 0208, Update 2, dated May 13, 1996, which specifies installation of modification TU 259, double support around the reduction gearbox free turbine bearing housing, to maintain bearing centering. The DGAC classified these SB's as mandatory and issued AD 1995-069(A)R3, dated March 7, 2001, to assure the airworthiness of these Turbomeca S.A. engines in France.

### **Bilateral Airworthiness Agreement**

This engine model is manufactured in France and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DGAC has kept the FAA informed of the situation described above. The FAA has examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

### **FAA's Determination of an Unsafe Condition and Required Actions**

Since an unsafe condition has been identified that is likely to exist or develop on other Turbomeca S.A. Arriel models 1A, 1A1, 1B, 1D, and 1D1 turboshaft engines of the same type design, this AD is being issued to prevent uncontainment of the free turbine during an overspeed event, resulting in damage to the helicopter. This AD requires installation of containment shield rings around the free turbine blade area, and installation of a double support around the gearbox free turbine bearing housing to maintain bearing centering. The actions must be done in accordance with the SB's described previously.

## **Immediate Adoption of This AD**

Since there are currently no domestic operators of this engine model affected by the adoption of this rule, notice and opportunity for prior public comment are unnecessary. Therefore, a situation exists that allows the immediate adoption of this regulation, and good cause exists for making this amendment effective in less than 30 days.

## **Comments Invited**

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NE-35-AD." The postcard will be date stamped and returned to the commenter.

## **Regulatory Analysis**

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE

Aircraft Certification Service  
Washington, DC



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.airweb.faa.gov/rgl](http://www.airweb.faa.gov/rgl)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

## **2002-14-26 Turbomeca S.A.:** Amendment 39-12826. Docket No. 2001-NE-35-AD.

**Applicability:** This airworthiness directive (AD) is applicable to Turbomeca S.A. Arriel models 1A, 1A1, 1B, 1D, and 1D1 turboshaft engines. These engines are installed on, but not limited to, Astar AS350D; Eurocopter AS350B, BA, B1, L1, and B2N; and Fennic AS550U2 helicopters.

**Note 1:** This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Compliance with this AD is required as indicated, unless already done.

To prevent uncontainment of the free turbine during an overspeed event, resulting in damage to the helicopter, do the following:

(a) For Arriel engine models 1A and 1A1 that have incorporated modification TU 13, but have not incorporated modification TU 99 and modification TU 215, and for Arriel engine models 1B and 1D that have not incorporated modification TU 99 and modification TU 215, do the following within 30 days after the effective date of this AD:

(1) Install containment shield ring in accordance with the Instructions to be Incorporated, paragraphs 2A. through 2C, (modification TU 254) of service bulletin (SB) No. A292 72 0206, Update 2, dated October 23, 2000.

(2) Install double support around the reduction gearbox free turbine bearing housing, in accordance with Instructions for Incorporation, paragraphs 2A. through 2C, (modification TU 259) of SB No. 292 72 0208, Update 2, dated May 13, 1996.

(b) For Arriel engine models 1A and 1A1 that have incorporated modification TU 13 and modification TU 99, but have not incorporated modification TU 215, and Arriel engine models 1B, 1D, and 1D1 that have incorporated modification TU 99, but have not incorporated modification TU 215, do the following within 30 days after the effective date of this AD:

(1) Install additional containment shield ring, in accordance with the Instructions to be Incorporated, paragraphs 2A. through 2C, (modification TU 255) of SB No. A292 72 0207, Update 2, dated October 23, 2000.

(2) Install double support around the reduction gearbox free turbine bearing housing, in accordance with Instructions for Incorporation, paragraphs 2A. through 2C, (modification TU 259) of SB No. 292 72 0208, Update 2, dated May 13, 1996.

### **Alternative Methods of Compliance**

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators must submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

### **Special Flight Permits**

(d) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be done.

### **Documents That Have Been Incorporated by Reference**

(e) The modifications must be done in accordance with the following Turbomeca S.A. mandatory service bulletins (MSB's):

<b>Document No.</b>	<b>Pages</b>	<b>Revision</b>	<b>Date</b>
MSB No. A292 72 0206, Total pages: 8	All	2	Oct. 23, 2000.
MSB No. A292 72 0207, Total pages: 7	All	2	Oct. 23, 2000.
MSB No. 292 72 0208, Total pages: 8	All	2	May 13, 1996.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca S.A., 40220 Tarnos, France; telephone: (33) 05 59 64 40 00; fax: (33) 05 59 64 60 80. Copies may be inspected, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**Note 3:** The subject of this AD is addressed in Direction Generale de L'Aviation Civile airworthiness directive AD 1995-069(A)R3.

### **Effective Date**

(f) This amendment becomes effective on August 6, 2002.

Issued in Burlington, Massachusetts, on July 8, 2002.  
Jay J. Pardee,  
Manager, Engine and Propeller Directorate, Aircraft Certification Service.  
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